

AMENDMENTS TO THE CLAIMS

Please cancel all pending claims, and add new claims as follows.

1-51. (Cancelled)

52. (New) A method for processing data received in a port of a switch, the method comprising:

managing 64-bit entries in a receive synch FIFO;

receiving two chunks of 32-bit data from the receive synch FIFO;

detecting a special character in a first byte of at least one of the received two chunks of 32-bit data; and

extracting a destination slot from a state field in a cell header of the at least one chunk of 32-bit data when the special character is detected in the at least one chunk of 32-bit data.

53. (New) The method of claim 52, further comprising:

determining whether the cell header is low-aligned or high-aligned or both;

writing 64-bit data to a data FIFO corresponding to the destination slot when the cell header is either low-aligned or high-aligned;

writing two 64-bit data to two data FIFOs corresponding to two destination slots when the cell header is low-aligned and high-aligned; and

filling one said chunk of 32-bit data with idle characters when a cell does not terminate at the 64-bit boundary and a subsequent cell is destined for a different slot.

54. (New) The method of claim 52, further comprising:

performing an early terminate to a cell that inserts a special

character and ABORT state information in the data when an error condition is detected.

55. (New) The method of claim 52, further comprising:
stopping requests to a FIFO read arbitrator after a current cell is completely read from a FIFO RAM when a flow control condition is detected.

56. (New) The method of claim 52, further comprising:
delivering 64-bit data to a SERDES synch FIFO module and transmitter when non-idle data is received from a FIFO read arbitrator;

injecting a first alignment sequence to be transmitted to the SERDES synch FIFO module and transmitter when the FIFO read arbitrator indicates that a plurality of FIFO RAMs are empty

injecting a second alignment sequence to be transmitted to the SERDES transmitter when a programmable timer expires and a previous cell has been completely transmitted; and

indicating to the FIFO read arbitrator to temporarily stop serving any requestor until a current pre-scheduled alignment sequence has been completely transmitted.

57. (New) The method of claim 52, wherein the special character is K0.

58. (New) A method for processing data in a switch, the method comprising:

storing chunks of data in a receive FIFO memory, the chunks of data comprising packet data;

detecting a special character in a first byte of at least one of the chunks of data;

extracting a destination slot of the switch from a state field of the chunk of data when the special character is detected;

writing the chunk of data to a data FIFO corresponding to the destination slot through a switching fabric.

59. (New) The method of claim 58, wherein the special character is K0.